



Maths policy

24th March 2022

Version	Date	Author	Status	Summary
2.0	March 2022	P.Kinsella		Curriculum & Standards

Date of Review: March 2024

Southwood Infant School Maths Policy

Vision, Values and Aims

Vision:

Mathematics is a tool for everyday life. It is a whole network of concepts and relationships which provide a way of viewing and making sense of the world. It is used for analysis, communicating information, practical tasks and real life problems. A high-quality mathematics education provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

Aims

In support of our vision and values we aim for all children to have:

- a positive attitude towards mathematics and an awareness of the fascination of mathematics
- competence and confidence in mathematical knowledge, concepts and skills
- an ability to solve problems, to reason, to think logically and to work systematically and accurately
- initiative and an ability to work both independently and in cooperation with others
- an ability to communicate mathematics
- an ability to use and apply mathematics across the curriculum and in real life
- an understanding of mathematics through a process of enquiry and experiment

Knowledge Skills and Understanding

All teachers at Southwood School use both medium term and short term planning to reflect the programmes of study set out in the National Curriculum. They review and alter plans according to their assessments and professional judgement.

The National curriculum states that:

- The expectation is that most pupils will move through the programmes of study at broadly the same pace.
- Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content.
- Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.

Children are taught through the CPA approach (concrete, pictorial, abstract). We aim for children to master the concepts they are taught and ensure children are stretched and challenged when they have grasped a concept to ensure their complete understanding. Children who struggle to grasp a concept are supported through use of manipulatives and pictorial

representations as well as targeted support from staff and interventions where appropriate.

Early Years Foundation Stage (EYFS)

Children in EYFS explore mathematical concepts through active exploration and their everyday play-based learning. Children are taught key concepts and develop number sense using a hands-on practical approach. EYFS practitioners provide opportunities for children to manipulate a variety of objects which supports their understanding of quantity and number. Pupils explore the 'story' of numbers to twenty and the development of models and images for numbers as a solid foundation for further progress. The CPA approach is used when teaching children key mathematical skills. Practitioners allow children time for exploration and the use of concrete objects helps to support children's mathematical understanding. Mathematics in the early years provides children with a solid foundation that will enable them to develop skills as they progress through their schooling and ensures children are ready for the National Curriculum

Calculation

Teachers follow the progressive calculation policy that ensures that children can use reliable and efficient methods to solve problems involving all four calculation operations. For more details please look under the calculation policy heading on our website.

Cross Curricular Links

Throughout the school we aim to make maths relevant to other areas of the curriculum and to the wider world. We aim to give children opportunities to practise and develop their mathematical skills through posing questions and problems that are set within real life contexts or local, national or world events.

Organisation and Planning

At Southwood Infant School each class teacher is responsible for the mathematics in their class. Teachers are given the medium term plans for each term that specifies the areas of the maths curriculum that are intended on being covered during that term. All teachers are then expected to do weekly short term plans in their Year group teams for 3-4 maths lessons a week. These must include mental maths warm-ups for each lesson to develop mental fluency. In addition to this, we are following a new national programme across the school, 'Mastering Number'. This programme aims to secure firm foundations in the development of good number sense for all children from Reception through to Year 2.

Pupil's record of work

Pupils at the school are encouraged to record their mathematical thinking in their maths books. Children are taught a variety of methods for recording their

work and they are encouraged and helped to use the most appropriate and convenient method of recording.

Marking

The quality of marking is crucial. Teachers use support and next step marking to direct children with their next steps in learning. The majority of supportive feedback is given verbally within the lesson or at a later date with the child. More details can be seen in the Marking policy on our website.

Assessment

At Southwood Infant School assessment of the children's mathematical ability is expected to be carried out during lessons in order to help inform future planning and teaching.

Ongoing Assessment

Each teacher uses a tracking system to assess the ongoing progress of the children.

Teachers use the Hampshire Assessment Model to record and report the progress of children at 3 key points throughout the year.

Formal Assessment

Year 2 are formally tested in May through the SATS test papers reasoning and arithmetic.

Reporting to parents

Parents are given the opportunity to discuss their child's progress during two parents' evenings that are arranged during the Autumn and Spring Terms. Teachers use the information gathered from their termly assessments to help them comment on individual children's progress. A written report goes home to parents in the Summer Term.

Parental involvement

- Parents are invited into school twice a year to look at their children's work and discuss their child's progress
- An open evening is held once a year, this has been provided by video during the pandemic, which can be found on the school website
- When significant changes have been/are made to the mathematics curriculum, parents are invited to a meeting or sent information

Differentiation

This should always be incorporated into the planning and teaching of all mathematics lessons and can be done in various ways:

- Next steps which become more difficult and demanding but cater for the less able in the early sections.
- Open-ended tasks which are activities/investigations where differentiation is by outcome.

- Resourcing which provides a variety of resources depending on abilities e.g. counters, cubes, numicon, 100 squares, number lines, mirrors, dienes
- Flexible Grouping according to ability so that the groups can be given different tasks when appropriate. This means that children will not always be in the same maths group and may move groups depending on the topic.

Monitoring and Evaluation

The Mathematics Manager is released regularly from his/her classroom to monitor and evaluate the quality and standards of mathematics throughout the school. This may take the form of book scrutiny, pupil conferencing, learning walks or coaching where the Maths Manager can support teachers in their own classrooms.

Staffing and resources

All resources are made available to teachers by being stored in a specific maths area or in year teams. These areas are easily accessible to all children, as well as adults, and allows them to become familiar with all resources. Resources are selected so that they are appropriate to the level at which the children are working.

Homework

It is our school policy to provide parents and carers with opportunities to work with their children at home. These activities may only be brief, but are valuable in promoting children's learning in mathematics.

The amount of homework varies depends on the age of the child. Activities are sent home on a regular basis and take the form of number games and tasks, with some more formal exercises for older children.

This policy should be read in conjunction with our Curriculum and Teaching and Learning policies.

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Mathematics Manager